

NOTES ON N'GAMILAND.

BY A. G. STIGAND.

(Read May 21, 1913.)

The accompanying Prismatic Compass Sketch Map of a traverse which I made in N'gamiland during January-March, 1911, from Tsau to the Chobe River, to which has been added a previous traverse from Toteñ to the Mababe by water, may prove of interest.

Administratively, N'gamiland is the North-Western District of the Bechuanaland Protectorate. The Batawana Reserve constitutes about three-quarters of this area, the northernmost portion thereof, and includes Lake N'gami. It is by far the most interesting part on account of the river-system of the Okovango, which river annually during the winter months—June to September—floods a vast area of country, the flood water resulting from the heavy summer rainfall in the countries to the north, Portuguese West Africa in particular, which the Okovango brings down, but which, owing to the flatness of the country, especially the almost dead level from about 18° 50' S. Lat. southwards, travels very slowly. It is also interesting because of Lake N'gami itself, which to-day has almost entirely dried up, with the exception of a little water that flows into its eastern end during the flood season, and is a vast reed bed which itself has been gradually contracting its borders during the last decade owing to this desiccation.

I here take the liberty of quoting from a description by Major E. J. Lugard, D.S.O., which appeared in the Kew Bulletin (No. 3 of 1909):—

“Broadly speaking, Lake N'gami may be considered the northern limit of the Kalahari Desert, and the southern and lowest point to the S.W. of an inland river-system which finds no exit to the sea. The drainage, therefore, is towards this depression to the S.W., and towards the Makarikari Salt-pan which is at a still lower level some two hundred miles to the S.E. Lake N'gami is now in the intermediate stage between a lake and a salt-pan, of which latter there are many in the Kalahari Desert to the East.

“Space does not admit of more than a slight reference to the remarkable river-system of the country lying immediately north of Lake N'gami.

It consists of a network of rivers and reed-grown swamps, of which the Tamalakan and the lower reaches of the Okovango are the extreme east and west channels. They are essentially the same river, linked up by innumerable channels."

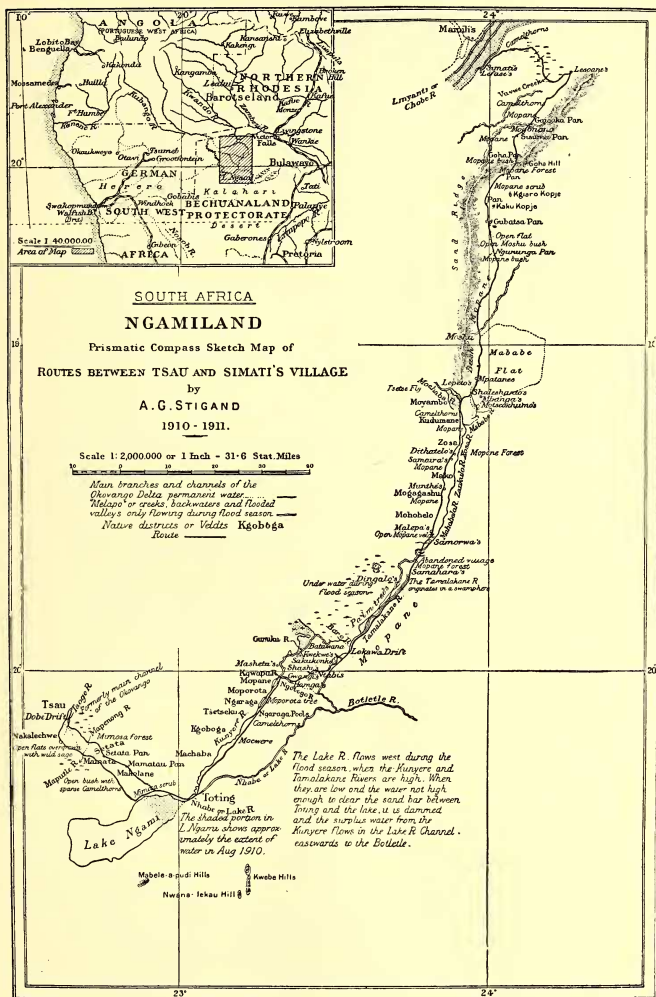
The boundaries of the Batawana Reserve were defined by the High Commissioner's Proclamation No. 9 of 1899. Its limits are, on the north, the narrow 20 miles wide German strip known as the "Caprivi Zipfel," on the east the 24th meridian of E. Long., on the south the 21st parallel of S. Lat., and on the west the 21st meridian of E. Long.

Roughly speaking, the Okovango River enters the Batawana Reserve towards its north-western corner, and flowing in one strong stream—averaging during the winter season 650 yards broad by 16 feet deep—in a S.S.E. direction, it begins to overflow its banks at 18° 21' S. Lat. and then spreads out fan-wise into many channels and swamps at about 18° 50' S. Lat. From the latter point southwards, owing to the level country, they continue to spread out until they attain a width of some 100 miles (in the winter season) just before reaching the 20th degree of S. Lat.

According to Dr. Passarge, and Seiner, there can only be a difference of some two or three metres between the altitude where the 19th parallel cuts the Okovango, and Tsau (south of the 20th parallel) and Lake N'gami.

Most of the main branch channels are perennial in their flow, running in comparatively deep beds, but are, of course, low during the summer months, when the small local rainfall of N'gamiland (recently about 16 inches per annum) has little effect on them. On the other hand, large swamp areas and countless creeks, valleys, backwaters, etc., which are running and full during the winter flood season, are quite dry the rest of the year. To the former perennially flowing channels the Batawana apply the Sechuana word "noka" (river) in contradistinction to "molapo," meaning a wet valley, a creek, or a backwater, or a swamp, which they apply to all of the second-mentioned non-perennial watercourses. For brevity, I will hereafter refer to "river" and "molapo," as the case may be.

The bulk of the Okovango water is carried down in the easternmost rivers, and to-day no water reaches Lake N'gami by the extreme western ones. The Okovango—or rather "Kovango," as it is named by the Mampukushu who live on it in the neighbourhood of the 18th parallel of S. Lat.—is named the "Taoge" (the "g" in Sechuana is pronounced as in loch) by the Batawana, the whole length of its course from Portuguese West Africa, and they look upon the westernmost river of its swamps as its main channel, which they recognize as the Taoge down past Tsau and thence down its smaller westernmost branch, locally known as the Dobe River, and a mile and a half further down as Moshwana-*oa-kubo*



(hippo rivulet), and lower still, as the Mokolane (palm-tree) river, where this small branch ends to-day ingloriously in a small swamp some 13 miles short of the north-western margin of the Lake basin. Its failure to reach the western end of the Lake to-day is no doubt partly attributable to diversion of the channels to the north through silting up, but chiefly, I think, to the fact of the generally greatly decreased volume of water discharged by the Okovango during recent decades. When Livingstone discovered the Lake in 1849, this Taoge, or westernmost river, was—according to old natives who were young men when the “Doctor” came to the Lake—“a large river,” and from what the old Makuba state that their fathers told them, the Okovango brought down annually a much larger volume of water both by the western and by the eastern rivers during the period (about) 1800–1850 than it has done since, and that even when Livingstone came the flow had markedly decreased.

It appears that the westernmost river, the Taoge, ceased running into the Lake at the end of the reign of the Batawana Chief Letsholathebe (about the end of the seventies) and that when his son Moremi succeeded him, about 1880, it had completely dried up south of the “Mokolane.”

The only water that reaches the Lake to-day flows into it at its eastern end, and then only when the Kunyere and Thamalakane Rivers are in high flood. When the Kunyere and Thamalakane Rivers are both very full, the whole of the Kunyere water and a portion of the Thamalakane water run into the Lake. The Thamalakane, which is the largest of all the branch rivers, when very full, divides its water at its junction with the Botletli and Lake River, the larger portion thereof flowing eastwards down the Botletli and the smaller portion along the Lake River to the Kunyere confluence at Toteñ, thence into the Lake together with the Kunyere water. On the other hand, when the Thamalakane and Kunyere Rivers are low, all the water of the former flows down the Botletli, and the water of the latter, being dammed by the sand-bar in the bed of the arm of the Lake (also called the Lake River) between Toteñ and the Lake mouth, makes its way eastwards to the Thamalakane-Botletli junction, there joining the Thamalakane water down the Botletli.

N'gamiland, generally speaking, is divided into two zones: the River-system zone and the Sandbelt zone. In the former zone tropical vegetation predominates, and in the latter the sub-tropical vegetation of the Kalahari.

As to the tropical vegetation, two species of palm are plentiful on the countless islands in the swamps—especially in those areas north of the 20th parallel where there is always water—namely, the tall fan-leaved “Mokolane” or *Borassus* palm, and the short “Tsaro” palm, with its feather-shaped leaves; and generally, in the river-system zone, the *Kigelia pinnata* (locally named the “Moporota”) with its huge, pendant sausage-

shaped fruit and claret-coloured flowers; the stately "Mokuchon"-tree and the "Mopororo"-tree (out of the trunks of these last three trees the Makuba make their dug-out canoes, the Morporota being considered the best); the "Mochaba," a *Ficus*, together with others of the *Ficus* family; vines of various kinds; and lastly, the *Adansonia digitata* or Baobab, which is found in both zones.

With regard to the sub-tropical vegetation of the sandbelts, the various kinds of thorny acacia predominate south of the 20th parallel of S. Lat., amongst which the largest is the *Acacia giraffae*—in South Africa wrongly named the Camelthorn, owing to the Dutch having misnamed the Giraffe the "Kameel," whereas *Camelopard* was meant; in the same manner the leopard (*Felis pardus*) has been misnamed the "tiger." Among the other kinds of thorny acacia the more noticeable are the "Mōshu" and the "Mōōka" (mimosa, or sweet-thorn), the latter growing near dongas and watercourses which run during the rains. Of other trees, not thorny, the "Mocwerè" (the Hardekol of the Boers), the "Mogonono," which grows in very loose sandy ground (the Makuba exclusively cut their punting poles from this tree); the "Mogkwa," or native teak, but this only grows in a few parts in the N.W. of the Batawana Reserve north of the 20th parallel. North of the 20th parallel the *Copaifera mopane* predominates, in fact the country between Lake N'gami and the Linyanti or Chobe River is almost entirely Mopane veldt, and, as it is well known, where this tree grows it excludes every other kind of vegetation, including other undergrowth.

As to the Batawana tribe and its origin. The Batawana are an offshoot of the Bamangwato, a Bechuana tribe of which the well-known Khama is chief to-day. Somewhere about the year 1800, Tawana, a brother of a former Chief Khama, an ancestor of the present one, quarrelled with his brother and seceded from him together with his followers. They made their way through the Kalahari to Lake N'gami where they settled, taking possession of the country, the Makuba, the inhabitants and aborigines of N'gamiland, a timid fishing people inhabiting the river-system, offering no resistance. Tawana, in the Sechuana language is the diminutive of Tau (lion). Ba-Tawana = the people of Tawana.

The Makuba, Makhalahadi and Masarwa (Bushmen) in N'gamiland are subject to and servants of the Batawana.

The Makuba inhabit the river-system and the Makhalahadi and Masarwa the sandbelts.

The Makuba are of fine physique, with muscles well developed from punting their dug-out canoes in the swamps from childhood, but are of a timid and childlike disposition, and a very stay-at-home lot. In punting they excel, but as they confine their navigation as much as possible to the shallows, avoiding deep water as much as they can, they are poor per-

formers with the paddle—in this respect unlike their neighbours to the north, the Mampukushu, who are experts with it. On a former journey by water up the Okovango to Dibebe's (Andara) in April, 1910, I was struck with the skill of the Mampukushu in negotiating the rapids of the Okovango, which they navigate, both up and down, two men standing in the canoe using the long paddle, or oar, with great dexterity. Some Makuba, who had reluctantly accompanied me as far as the beginning of the rapids at Popa and who were much alarmed at the big river, which they had never seen before, were very astonished at the performances of the Mampukushu.

Ramokwati, an old Mokuba over eighty years of age, the grandson of Zankotse, who was the chief of the Makuba when Tawana and his people arrived at the Lake, states that the Makuba were more numerous in those days, having been subsequently decimated by some epidemic. He says that a large number lived on the shores of the Lake, Zankotse's village standing where Ramotsamaesi's village stands to-day on the Lake River; and the Lake was a vast expanse of open water, and that Makuba who plied with their canoes on it were often swamped by the waves and lost; that Tawana was friendly with the Makuba and did not exact tribute from them and make them his servants as he and his people were anxious that the Makuba should teach them "to go on the water in canoes"; that it was subsequent chiefs who made them servants.

The river-system of N'gamiland abounds in fish, chiefly perch of many varieties. Mr. R. B. Woosnam, who collected specimens in N'gamiland in 1909 on behalf of the British Museum, obtained, I think, 13 varieties of perch. Besides perch, there is the ordinary South African "barbel," or "toni" as the Makuba call it; a small kind of pike; and in the main stream of the Okovango, the "tiger fish," a black and silver spotted fish of pike habits, scaling frequently 12 lbs. and upwards. This last gives good sport, casting and trolling, with the pike rod. The Makuba fish chiefly with the net, which they manufacture from string made from the fibre of an aloe, the "mokgotse," which is plentiful in many parts of N'gamiland, as well as from the "maqanqawa," a prickly stemmed plant about 6 feet high growing on the banks of islands in the swamps some distance to the north of Tsau and which is not so plentiful. The net is soaked in a red dye made from the inner bark of the "Mōoka"-tree to preserve it from rot. Small bunches of "madinti," a water-rush, are used as floats. Having extended the net in shallow water the fish are driven into it by Makuba approaching in canoes beating the water with their punt poles. They also catch fish to a large extent with fish traps, both fixed and portable. The former are erected in running channels in the shape of a stockade made of reeds across the stream, with sundry (in plan) heart-shaped enclosures with narrow openings at the V, at the top

of the heart, as it were; the fish after entering are unable to find their way out again. The portable traps are basket-shaped, the smaller kind made of "chita" rush, and the larger of reeds. The Makuba also spear fish.

They seldom wear European clothes, wearing a strip of steenbuck leather about the middle, worn, like the Masarwa, bathing-drawers fashion, but with a butterfly-like ornament behind consisting of a pair of wings about 6 inches in diameter of untanned steenbuck skin with a white border. This typical Makuba ornament looks rather quaint and neat. They also make themselves leather jackets, sleeveless as a rule, out of pala or reedbuck skin, and straw hats out of grass.

Following the Batawana, a fair percentage of Makuba profess Christianity to-day. They have no religion of their own, but merely believe in the existence of a Supreme Being. Different groups of them, like other tribes, have their totems among the antelope or other wild animals, but this is unconnected with any kind of religious worship. Their law of succession used to be—as it is with the Mampukushu to-day—through the female line; the eldest son of the eldest sister of the deceased male being the heir. But now the majority have adopted the Batawana law of succession through the male line.

The Batawana, like other Bechuana, wear European clothes, which they began to adopt as long ago as the seventies. They are mostly Christians. The work of conversion begun by Livingstone during his short stay at the Lake on his way to the Makololo being continued by Khukwe, a native missionary installed by him at the Lake, and in later years by Mr. Wookey.

Up till the middle of the eighties the Batawana lived at the eastern end of the Lake, the spot called Toteñ to-day—the name being a contraction of Matoteñ, or Matlotleñ as it should be in Sechuana, but the Batawana drop the "l" sound in all Sechuana words with "tl." Matlotleñ is the locative case of Matlotla (abandoned and ruined huts).

Under the Chief Moremi, in consequence of the two Matabele raids on them, the Batawana in 1886, just after the second raid, moved their village to Nokaneñ, on the Okovango, 45 miles north of Tsau, thence to Komokaku, thence to Nakalechwe, and thence to Tsau, where they dwell to-day under the young Chief Mathiba, son of Moremi, who was installed by the Government as chief in 1906 in place of Sekgoma, his uncle, who, for political reasons, was deposed and deported. Tsau is 462 miles by road from the railway, at Palapye Road Station, the journey occupying five to six weeks by ox-wagon. Its altitude is, according to Dr. Passarge, 2,969 feet (950 metres) above sea-level, and that of Lake N'gami the same.

On the occasion of the Matabele raid in 1886, the Batawana with

their cattle took refuge on an island in the swamps, to which their Makuba piloted them, and which was only fordable—neck deep—from one point, being inaccessible to the Matabele, who had no canoes, from other sides owing to the deep water and dense reeds and rushes. The Batawana being well armed with rifles and ammunition took up a strategical position on the bank of the island, under cover of the reeds commanding the narrow channel of approach, and were successful in driving off several determined attacks by Lobengula's impi, who, hampered by the deep water and reeds, were at the mercy of the rifles of their enemy and suffered considerable losses, the wounded being finished off in the water by the crocodiles and by the Batawana when the Matabele had retired, which the latter eventually did, much exasperated by hearing the lowing of the Batawana cattle safely kraaled in the centre of the island, since it was for the cattle that Lobengula had sent them.

Tsau, the name of the present Batawana village, which takes its name from the particular "veldt" in which it is situated, is a Sesarwa or Bushman word (pronounced Qao—the "Q" representing a linguo-dental click) meaning "many buffaloes."

The Batawana all reside at Tsau, except when visiting their outlying cattle-posts and cornfields, or when a few occasionally go out hunting for a few weeks. Most of the women spend half the year away at the cornfields where there are summer huts and little villages, returning into Tsau for the winter. The corn grown is "Kafir corn," or *Sorghum vulgare*. The Motawana young man of to-day has degenerated, in character and stamina, partly the result of in-breeding, but chiefly through his inactive and unmanly life, doing nothing, and is an inferior being to the old men, who were brought up in a stricter and manlier school and with a severer parental discipline.

As to the races in the Batawana Reserve subject to the Batawana, besides the Makuba, there are on the sandbelts, as stated, Makhalahadi and Masarwa. Both of these have been described by others. Concerning the nomadic Mosarwa, or Bushman, of the Kalahari, he has been so often described that there is nothing new with regard to him that I can contribute, excepting the following one bit of information, and that is the detailed process by which he makes the poison for his arrows, since, as far as I am aware, no European has hitherto discovered it in detail. It is as follows :—

The Mosarwa in the Batawana Reserve first seeks out a certain thorn-bush in the sandbelt which he calls "Doru"* (the Batawana have no name for it, as they do not know it, at least the majority of them). This

* The "Doru" bush is the bush used by Masarwa in N'gamiland, roughly North of Latitude 20° 30'. South of this, in the Kalahari proper, it is not to be found and another is used.

bush grows to about 4 feet high and spreads out a good deal. It is, but for the thorns, something like a diminutive "Mochaba." If you strip the bark off a red gum exudes. It has white thorns about $2\frac{1}{2}$ inches long, and is to be found in many of the higher parts of the sandbelt. If you watch the leaves of this bush, grubs or caterpillars will be observed feeding on it; these drop to the ground and bury themselves in the sand where they encase themselves in a kind of cocoon. The Mosarwa, during the winter months, digs under this thorn-bush and secures these cocoon-encased grubs. He then breaks the cocoon and extracts the grub, which is a small flattish grey-coloured grub about 3 millimetres long. He severs its head and dries the body in the sun. He then grinds to powder the dried grub bodies in a saucer-shaped bone, usually using a concave section of bone from the neck portion of the spinal column of a giraffe as the saucer, or mortar, and a stick of bone for a pestle. He next seeks out a "Moñana" thorn-bush (*Zizyphus mucronata*), so well known to English colonists as the "wait-a-bit" thorn, and to the Boers as the "haakdoorn," which is very common in the Bechuanaland Protectorate, the Western Transvaal, and Bechuanaland, and which grows to a height of from 7 to 16 feet. He now performs the second stage of his process in either of the following two ways, as may happen to be most convenient at the time. He either

(1) Cuts down the "Moñana" bush and cuts out a length of the trunk (which in the average-sized bush is about as thick as a man's arm) which he places on a fire with the end projecting. Under this projecting end he places the bone saucer containing the powdered grubs. The sap of the "Moñana" then oozes out at the end of the piece of trunk and drops into the saucer. Or else

(2) He tears off the outer bark of the "Moñana" so as to get at the inner bark or skin; a piece of the latter he tears off and chews in the mouth spitting it out into the saucer containing the powdered grub.

He thoroughly stirs up and mixes the compound, then smears his bone or iron arrow-heads with the concoction, twice, letting it dry after each application, and after dusting on to it a few of the heads of the grubs (the latter for luck, one presumes). The concoction dries into a dark-brown crust.

They state that this poison remains active for about two years. A Masarwa can tell whether the poison on an arrow-head is still active or not by smelling it. An antelope, say an eland, hit with one of these poisoned arrows may perhaps travel 40 miles or even 70 miles before it dies, getting slower and weaker as it goes. On these occasions the Masarwa with their women and children, and all their household belongings (generally a pot and a few skins), move their residence and follow the spoor of the wounded animal until it finally drops and dies. The

Masarwa say that the meat remains quite good for a day or two, but if the carcase is left longer it swells very much and the meat goes rapidly bad. One concludes that it must get very bad indeed, since meat of a carcase that has become putrescent in the ordinary way, and which is in such a state of putrefaction as to cause the average European to make a detour in the veldt to avoid it, is most palatable to the Mosarwa, who doubtless looks upon such well-hung game as a dainty dish with plenty of flavour to it. Whilst on this subject it may be mentioned that also the Makuba and the River Mosarwa have not the slightest objection to well-hung fish. When you are being punted by them in the swamps they will with loving care recover the decomposed body of a fish floating on the water and preserve it in your canoe where it loses no time in announcing its presence, which you take care is not unnecessarily prolonged.

With regard to the arrow poison of the Mosarwa, I have not found any of the Batawana who knew the process of preparation, except one old man who used to hunt with his father's Mosarwa servants from childhood, and he knew the general process but not in exact detail. The reason for this is, presumably, that the matter is of no particular interest to the Batawana, since they have used firearms in hunting for the last forty years or so, and doubtless have not taken the trouble to find out.

Besides the ordinary Sandbelt Mosarwa, there is in N'gamiland another species of Mosarwa, the River Mosarwa, who lives on the river-system in fixed villages in the same way as the Mokuba, and who, like him, lives chiefly by fishing. His language is similar to, but different from, that of the proper Mosarwa. He is darker in colour, in shade between the yellow-brown of the Mosarwa and the black of the Mokuba, and is no doubt the result of a former cross between the two. The River Mosarwa, when fishing fails, hunts in the veldt, but is, as one would expect, inferior to the Sandbelt Mosarwa as a tracker, veldtsman, and hunter. Like the Mokuba, he is very "parochial" in his peregrinations, and seldom knows the veldt beyond the limits of his own "naga" (veldt), or small district. I have seen many of them get completely lost in the veldt once beyond their little radius of 10 miles from their village on the bank of a river or swamp.

With regard to the journey made in July-August, 1910, from Tsau to Mababe, the portion from Tsau to Toteñ was performed with cart and oxen, the southern more circuitous road being taken to avoid flood water which extended from Tsau to beyond the Mapenoñ River at the time.

Nine and a-half miles from Tsau the Mokolane rivulet, ending in a small swamp, was forded. This channel, as stated above, up till the end of the seventies flowed into the Lake at its N.W. corner as a large river: as large as the Thamalakane is to-day, the old men say, and is still looked upon as being the Taoge River, or main channel of the Okovango. The

ocal names it bears successively in the neighbourhood of Tsau, viz., Dobe-River, Moshwana-oa-kubo, and Mokolane, is a way rivers have in N'gamiland, where they generally take the name of the "naga," or "district," through which they run. It may here be remarked that the whole of N'gamiland, including the swamps, is divided up into "dinaga," or veldts, some being large areas and others again absurdly small. These "districts" are named after some predominating vegetation, or feature, or from some event that took place in them in the past—the latter being frequently of a most trivial nature. Although the Dobe-to-Mokolane channel is referred to, especially by the older men, as the Taoge, other rivers are not so fortunate and change their name during their course without any clue to their identity, *e.g.*, the Mohohelo River.

Sixteen miles from Tsau the Maputle River, which is the Mapenoñ higher up, is forded. This is a branch of the Taoge.

On emerging from the ugly Mōshu and Mōōka scrub into the open sandy flat bordering the "Lake," there is nothing to be seen but a sea of reeds with the distant Mabele-a-pudi and Kwebe hills (porphyry) beyond. These are the only kopjes seen on the whole journey to Mababe. Between the Mababe and the Linyanti River the next kopjes to be seen are the Gubatsa hills.

The aneroid altitudes along the Lake given on the sketch map are merely relative to one another. Dr. Passarge makes both Tsau and the Lake 2,969 feet above sea-level (950 metres).

The name N'gami is from "N'ama" (with a linguo-dental click after the "N" sound) which in the language of the Makuba means—as one expects in African lake-names—"Lake." The Batawana have Sechuanized the word into "Ñhabe," which is their name for it.

On returning from the Mababe in August, as there was that season a good flow of water from the Kunyere and Thamalakane Rivers into the Lake, and the natives were of opinion that more water had run into it than there had been therein for several years past, the Lake was visited by canoe, proceeding down the Lake River from Toteñ—the last part of this channel, on account of the slope of its bed into the Lake, runs very swiftly—then by a swift and fairly deep open channel, averaging 10 yards in width, through the reed bed, which gets slower in current until at about 8 to 9 miles from Toteñ the channel ceased and the water became very shallow, breaking up into little runlets winding among the reeds. After about 100 yards along one of these runlets the water became too shallow for further progress by canoe, although the latter only drew 9 inches. On getting out and wading amongst the thick aquatic vegetation and reeds for another $\frac{1}{4}$ mile, the water got shallower as one went on, and one came to the conclusion that there was nothing to see and also that the shallowing water could not extend at the most more than $\frac{3}{4}$ mile

to a mile further westwards in the Lake, beyond which point the reeds depended, no doubt, for their existence on the moisture that the "Lake" bed absorbs from the small local rainfall in summer.

Old Ramokwati and other old Makuba state that as the Lake dried up from the western end and the bed was exposed, they found stumps of Mocwere and other sandbelt trees that had been once growing there, thus showing that at some period—prior to Makuba tradition—there had been woodland there which must have subsequently been submerged.

Most years, August to November, there is splendid duck-shooting at Toteñ, large numbers of duck flying from the Kunyere to the Lake. Of these there are at least 13 varieties, including the Pochard, the South African teal, widgeon, tree duck, &c., and also spur-winged geese, knob-nosed, pigmy, and Madagascar geese.

From Toteñ to the neighbourhood of the Mababe the journey was made by boat.

The depression of the Mababe Flat must be slightly under 3,000 feet altitude, that is to say, about the same altitude as Tsau. During the winter months herds of tsessebe and blue wildebeeste are to be seen on the flats, as well as an occasional troop of zebra.

The second journey from Tsau to the Linyanti River was performed with cart and oxen the whole way, fording the Kunyere at Toteñ and, further on, swimming the oxen and floating the cart across the Thamalakane River at the Lekawa Drift, where the Matabele in the eighties crossed on a raft improvised with reeds. This point is referred to by the Batawana as Lekaweñ (the locative case of Lekawa "raft").

The other rivers crossed were fordable at that time of year, none of them being over 4 feet deep, but several necessitating having the cart unloaded and the contents carried or canoed over.

The "melapo" with the exception of those on the Chobe, were dry, of course, on the second journey.

The only stone seen on the second journey, with the exception of the distant view of the Kwebe hills, and the Gubatsa and Goha hills passed North of Mababe (which are also porphyry, I think), are a few small patches of limestone outcrop, which are marked on the map.

As to game, I will confine myself to that which is to be met with on the actual route traversed. During the summer months very little game is to be seen, for when there is rain-water in the pans in the sandbelt, the game which, with the exception of the eland who does not drink, congregates near the rivers and melapo in winter, scatter far and wide over the sandbelt. During the winter months the following may be met with: giraffe, eland, tsessebe, blue wildebeest, zebra, pala, kudu, a few roan and also sable antelope, a few waterbuck. On the Thamalakane and other rivers some hippo are occasionally to be found. Reedbuck and lechwe are

fairly plentiful, fairly large herds of the latter being frequently met with. Bushbuck are also seen in a few parts. Sitatunga is not to be found, its habitat being in the heart of the deep swamps to the west. Warthog are fairly plentiful in many parts. The various antelope mentioned are only found in certain parts of the route, of course, and within their own particular limits. With regard to the larger carnivora: lion, leopard, hunting-leopard or chitah (not often actually seen), hyaena, crocuta, and hunting-dog. The leopard is to be found chiefly in the hills, but also on the river-system, especially on islands in the swamps where it preys on lechwe. These leopards seem almost as much at home in water as on land, being powerful swimmers. When hunted, they swim in the deep water through the reeds from island to island, and, when so escaping, generally baffle pursuit.

Game is protected by the Government. The hunting rights of the Batawana, which they were allowed to retain, are vested in the chief, who, before white administration came into the country, was, according to old Bechuana law, sole owner of his country and all that is in it, including the trees and the soil; and the Chief Mathiba, like his neighbour Khama, actively co-operates with the Government in the preservation of the game, giving very limited permission to his people at present to hunt, except in respect of the smaller and more numerous antelope such as steenbuck, duiker, lechwe, and pala.

Crocodiles abound in the rivers and swamps, but are seldom actually seen in winter, owing to their bashfulness (above the surface, one should add), but may often be seen in summer basking in the sun on sandbanks.

The small villages shown on the map north of the Lake are, with the exception of some of the Batawana outlying cattle-posts, mostly Makuba villages, excepting Gwangi's and those in its immediate vicinity, which are inhabited by Manaye—a fishing tribe from the Chobe which settled in Batawana country several generations ago—and some Massubia—an offshoot of the Mampukushu—at M'bang's village, Mababe, and along the Linyanti; these last settled in N'gamiland some fifty years ago, having fled from Barotseland on account of oppression at the hands of the Barotse.

In conclusion, it may be remarked that the young chief of the Batawana is progressive in his ideas and anxious to conduct things in his country according to English views.